



PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)
Jamieson, J. et al.) Examiner: Unassigned
Serial No.: 10/582,288) Art Unit: Unassigned
Filed: June 12, 2006) Docket No.: R131 1010) (56308.0002.3)
For: Methods and Compounds for Modular Triglyceride and VLDL Secretion	,

FIRST INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313

Sir:

Applicants hereby voluntarily disclose the references listed on the attached Form PTO/SB/08A and /08B, pages 1-5, with all documents included on the enclosed CD for the convenience of the Examiner, to the Assistant Commissioner for Patents.

Applicants further reserve the right to establish the patentability of the claimed invention over any of the listed information should they be applied as references, and/or to prove that some of the cited information may not be prior art, and/or to prove that some of the cited information may not be enabling for the teachings they purport to offer. This statement further should not be construed as the representation that an exhaustive search has been made, or that the information cited herewith is material, or that there does not exist information more material to the examination of the present Application. The Examiner is specifically requested not to rely solely on the information submitted herein. On the contrary, the Examiner is requested to conduct an independent and thorough review of the information, and to form independent opinions as to their significance.

Appl. No. 10/582,288 Atty. Dkt. No.: R131.1010.1 (56308.0002.3

It is respectfully requested that the Examiner initial and return copies of the enclosed PTO-1449 and to indicate in the official file wrapper of the above-identified patent application that each item of the cited information has been considered.

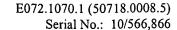
If a fee is due, the Commissioner is hereby authorized to charge the fee(s) to Deposit Account No. 09-0528. This Information Disclosure Statement is submitted in duplicate.

Respectfully submitted,

Date: /2 (2 06

David S. Bradin Attorney for Applicant Reg. No. 37,783

Womble Carlyle Sandridge & Rice, PLLC P.O. Box 7037 Atlanta, GA 30357-0037 (919) 484-2382 (Telephone) (919) 484-2084 (Facsimile) Customer No. 26158





CERTIFICATE OF MAIL

Date of Deposit:

December 12, 2006

Type of Documents:

Information Disclosure Statement = 2 pages

Certificate of Mail, this page = 1 pages

SB/08A and B = 5 pages

1 Disk

Return Postcard

Total Number of Pages submitted

8 pages

Title:

Methods and Compounds for Modulating

Triglyceride and VLDL Secretion

Serial No.

10/582,288

Filing Date:

June 12, 2006

I hereby certify that the above documents are being mailed in an envelope by First Class mail to:

Commissioner for Patents Mail Stop: IDS P. O. Box 1450 Alexandria, VA 22313-1450

Donnie S. Dietrich

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under K	E Paperwork Reduction	Act o	r 1995, no persons are required	to respond to a collection of informa-	ation unless it contains a valid OMB control number	
				Complete if Known		
Substitu	ite for form 1449/PTC)		Application Number		
				Filing Date	June 12, 2006	
INFORMATION DISCLOSURE				First Named Inventor	Jamieson	
STATEMENT BY APPLICANT			APPLICANT	Art Unit		
İ				Examiner Name	,	
	(Use as many sh	eets	as necessary)			
Sheet	1	of	1	Attorney Docket Number		

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. 1	Document Number Number-Kind Code ^{2 (ff known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
-							
		·					
	1 1						

	FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. 1	Document Number Country Code ³⁻ Number ⁴⁻ Kind Code ^{5 (ff known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶			
		WO 03/066086	08-14-2003	KARSTEN					
				·					
	<u> </u>					-			

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. There is the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark in the conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant is unique citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant is unique citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant is unique citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant is unique citation if not in conformance and not considered. Applicant is to place a check mark the conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Applicant is unique citation if not in conformance and not considered. Applicant is unique citation if not in conformance and not considered. Applicant is unique citation if not in conformance and not considered in the conformance and not considered. Applicant is unique citation in the conformance and not considered in th here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and

by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

if you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Complete if Known Substitute for form 1449/PTO **Application Number** Filing Date June 12, 2006 **INFORMATION DISCLOSURE** First Named Inventor Jamieson Art Unit STATEMENT BY APPLICANT **Examiner Name**

(Use as many sheets as necessary) Sheet 1 of 4 Attorney Docket Number

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²		
		Alexander et al., 1976, "Subcellular localization of B apoprotein of plasma lipoproteins in rat liver. "J. Cell Biol. 69: 241-263			
		Antonny et al., 1997, "Activation of ADP-ribosylation factor 1 GTPase-activating protein by phosphatidylcholine-derived diacylglycerols." J. Biol Chem, 272, 30848-30351			
		Asp et al., 2000, "ADP-ribosylation factor 1 and its activation of phospholipase D are important for the assembly of very low density lipoproteins." J. Biol Chem, 275, 26285-26292			
		Balsinde, 2002, "Roles of various phospholipases A2 in providing lysophospholipid acceptors for fatty acid phospholipid incorporation and remodelling." Biochem J. 364: 695-702			
	•	Biederbick etal., 1995, "Monodansylcadaverine (MDC) is a specific in vivo marker for autophagic vacuoles." Eur. J. Cell Bio. 66: 3-14			
		Blanchette-Mackie etal., 1995, "Perilipin is located on the surface layer of intracellular lipid droplets in adipocytes." J. Lipid Res., 36: 1211-1226			
		Burnett et al., 2003, "A novel nontruncating APOB gene mutation, R463W, causes familial hypobetalipoproteinemia." J. Biol. Chem. 278, 13442-13452			
		Chernomordik, L., M. M. Kozlov, and J. Zimmerberg. 1995. "Lipids in biological membrane fusion." J. Membr. Biol. 146:1-14			
	•	Cui et al, 1995, "Expression of phosphatidylethanolamine N-methyltransferase-2 in McArdle-RH7777 hepatoma cells inhibits the CDP-choline pathway for phosphatidylcholine biosynthesis via decreased gene expression of CTP:phosphocholine cytidylyltransferase." Biochem J., 312, 939-945			
		Daleke 2003, "Regulation of transbilayer plasma membrane phospholipid asymmetry." J. Lipd Res, 44, 233-242			
		Dashti et al., 2002, "The N-terminal 1000 residues of apolipoprotein B associate with microsomal triglyceride transfer protein to create a lipid transfer pocket required for lipoprotein assembly." Biochemistry. 41, 6978-6987			
		DeLong et al., 1999, "Molecular distinction of phosphatidylcholine synthesis between the CDP-choline pathway and phosphatidylethanolamine methylation pathway". J. Biol. Chem. 274: 29683-29688.			
		Fisher et al., 2001, "The triple threat to nascent apolipoprotein B. Evidence for multiple, distinct degradative pathways." J. Biol. Chem. 276, 27855-27863			
		Fisher et al., 1998, "Apolipoprotein B metabolism in hypertriglyceridemic diabetic patients administered either a fish oil- or vegetable oil-enriched			

	diet." J. Lipid Res. 39: 388-401	
	Fisher and Ginsberg, 2002, "Complexity in the secretory pathway: the	
	assembly and secretion of apolipoprotein B-containing lipoproteins", J. Biol. Chem. 277,17377-17380	
	Gusarova etal., 2003, "Apolipoprotein B100 exit from the endoplasmic	
	reticulum (ER) is COPII-dependent, and its lipidation to very low density lipoprotein occurs post-ER. ", J. Biol. Chem. 278:48051-48058	
	Harris, 1999, "n-3 fatty acids and human lipoprotein metabolism: an update." Lipids Suppl 34, S257-S258	
	Hebbachi and Gibbons, 2001, "Microsomal membrane-associated apoB is the direct precursor of secreted VLDL in primary cultures of rat hepatocytes." J. Lipid Res.42, 1609-1617;	
	Hsu et al., 2000, "Effect of n-3 fatty acids on the composition and binding properties of lipoproteins in hypertriglyceridemic patients." Am.J. Clin. Nutr. 71: 28-35	
	Ichimura et al., 2000, "A ubiquitin-like system mediates protein lipidation." Nature 408, 488-492	
	Kabeya et al., 2000, "LC3, a mammalian homologue of yeast Apg8p, is localized in autophagosome membranes after processing.", EMBO J. 19 (21): 5720-5728	
	Klionsky and Emr, 2000, "Cell biology - Autophagy as a regulated pathway of cellular degradation." Science 290,1717-1721	
	Kotkat etal., 1999, "Effect of dietary fish oil (active EPA-30) on liver phospholipids in young and aged rats." Comp Biochem. Physiol A Mol. Integr. Physiol 122, 283-289	
	Lang and Davis, 1990, "Fish oil fatty acids impair VLDL assembly and/or secretion by cultured rat hepatocytes." J. Lipid Res, 31, 2079-2086;	
	McLeod et al. 1996, "Apolipoprotein B sequence requirements for hepatic very low density lipoprotein assembly. Evidence that hydrophobic sequences within apolipoprotein B48 mediate lipid recruitment." J. Biol Chem 271, 18445-18455	
	McLeod etal.,1994, "Carboxyl-terminal truncation impairs lipid recruitment by apolipoprotein B100 but does not affect secretion of the truncated apolipoprotein B-containing lipoproteins." J. Biol. Chem. 269,2852-2862	
	Morrisett et al. "Effects of Sirolimus on Plasma Lipids, Lipoproteins, and Fatty Acid Metabolism in Renal Transplant Patients." J Lipid Res 43:1170-1180, 2002	
	Mizushima etal., 2003, "Role of the Apg12 conjugation system in mammalian autophagy." Int. J. Biochem. and Cell Biology 35,553-561	
	Mizushima etal.,2001, "Dissection of autophagosome formation using Apg5-deficient mouse embryonic stem cells." J. CellBiol., 152(4): 657-668	
	Murphy and Vance, 1999, "Mechanisms of lipid-body formation.", Trends Biochem. Sci. 24: 109- 115	
	Nestel et al., 1984, "Suppression by diets rich in fish oil of very low density lipoprotein production in man." J. Clin. Invest. 74: 82-89;	
	Nishimaki-Mogami et al, 2002, "Inhibition of phosphatidylcholine synthesis via the phosphatidylethanolamine methylation pathway impairs incorporation of bulk lipids into VLDL in cultured rat hepatocytes." J. Lipid Res. 43, 1035-1045	
	Noga et al, 2002, "An unexpected requirement for phosphatidylethanolamine N-methyltransferase in the secretion of very low	
	density lipoproteins." J. Biol Chem, 277, 42358-42365 Packard and Shepherd, 1997, "Lipoprotein heterogeneity and apolipoprotein B metabolism", Arterioscler. Thromb.Vasc.Biol. 17, 3542-3556	

		Parks et al., 1989, "Fish oil decreases hepatic cholesteryl ester secretion	
		but not apoB secretion in African green monkeys. " J. Lipid Res. 30: 1535-	
	<u> </u>	1544	
	1 .	Parks et al., 1990, "Effect of fish oil diet on hepatic lipid metabolism in	
-		nonhuman primates: lowering of secretion of hepatic triglyceride but not	
	 	apoB. " J. Lipid Res. 31: 455-466 Phung etal., 1997, "Phosphoinositide 3-kinase activity is necessary for	
		insulin-dependent inhibition of apolipoprotein B secretion by rat	
		hepatocytes and localizes to the endoplasmic reticulum." J. Biol. Chem.	
		272,30693-30702	
		Reggiori and Klionsky 2002, "Autophagy in the eukaryotic cell." Eukaryot.	
	1	Cell 1(1): 11-21	
		Rustaeus et al.,1999, "Assembly of very low density lipoprotein: a two-step	
		process of apolipoprotein B core lipidation. "J. Nutr. 129, 463S- 466S;	
		Rustaeus etal., 1998, "The microsomal triglyceride transfer protein	
		catalyzes the post-translational assembly of apolipoprotein B-100 very low	
	ļ	density lipoprotein in McA-RH7777 cells." J.Biol, Chem 273, 5196-5203	
		Shelness and Sellers, 2001, "Very-low-density lipoprotein assembly and	
	 	secretion." Curr. Opin. Lipidol, 12(2): 151-157	
		Stillemark et al., 2000, "The assembly and secretion of apolipoprotein B-	
		48-containing very low density lipoproteins in McA-RH7777 cells." J. Biol. Chem. 275,10506-10513	
<u> </u>		Stromhaug etal., 1998, "Purification and characterization of	
		autophagosomes from rat hepatocytes." Biochem. J. 335,217-224	
		Sullivan etal., 1986, "Paradoxical elevation of Idl apoprotein - b levels in	
		hypertriglyceridemic patients and normal subjects ingesting fish oil	
		atherosclerosis", Atherosclerosis, 61: 129-134	
		Tran et al., 1998, "Functional analysis of disulfide linkages clustered within	_
		the amino terminus of human apolipoprotein B.", J. Biol. Chem 273,7244-	
		7251	
		Tran et al., 2000, "The assembly of very low density lipoproteins in rat	
		hepatoma McA-RH7777 cells is inhibited by phospholipase A2 antagonists.",	
		J. Biol Chem 275, 25023-25030	
		Tran et al.,2002, "Intracellular assembly of very low density lipoproteins	
		containing apolipoprotein B100 in rat hepatoma McA-RH7777 cells.", J. Biol. Chem. 277, 31187-31200	
		Ueno etal.,1991, "Membrane markers of endoplasmic reticulum preserved	
		in autophagic vacuolar membranes isolated from leupeptin-administered rat	
		liver. " J. Biol. Chem, 266,18995-18999	
		Verkade et al., 1993, "Impaired biosynthesis of phosphatidylcholine causes	
		a decrease in the number of very low density lipoprotein particles in the	
		Golgi but not in the endoplasmic reticulum of rat liver." J. Biol. Chem.	
		268(33): 24990-24996	
		Vukmirica et al.,2002, "The N-linked oligosaccharides at the amino	
		terminus of human apoB are important for the assembly and secretion of	
		VLDL." J. Lipid Res. 43,1496-1507	
		Wang etal., 1995, "Degradation of apolipoprotein B in cultured rat hepatocytes occurs in a post-endoplasmic reticulum compartment." J. Biol.	
		Chem. 270,24924-24931	
	<u> </u>	Wang et al, 1999, "The activity of microsomal triglyceride transfer protein	
		is essential for accumulation of triglyceride within microsomes in McA-	
		RH7777 cells. A unified model for the assembly of very low density	
		lipoproteins." J. Biol Chem 274, 27793-27800	
		Wong and Nestel, 1987, "Eicosapentaenoic acid inhibits the secretion of	
		triacylglycerol and of apoprotein B and the binding of LDL in Hep G2 cells."	

	Atherosclerosis 64,139-146
	Yao et al., 1997, "Intracellular degradation of newly synthesized apolipoprotein B." J. Lipid Res. 38, 1937-1953
0	Yao and Vance, 1988, "The active synthesis of phosphatidylcholine is required for very low density lipoprotein secretion from rat hepatocytes." J. Biol Chem. 263, 2998-3004
	Yamamoto etal.,1990, "Characterization of the isolation membranes and the limiting membranes of autophagosomes in rat hepatocytes by lectin cytochemistry." J. Histochem. Cytochem. 38,573-580
	Zhang etal., 2002, "Creating new. fluorescent probes for cell biology." Nat. Rev. Mol. Cell Biol. 3,906-918

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is

This collection of Information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.